



CHING TAI ELECTRIC WIRE & CABLE CO. LTD.

新泰工業股份有限公司

SPECIFICATION FOR APPROVAL

CUSTOMER : Jia Ying Trading Pte Ltd

CUSTOMER P/N :

DESCRIPTION : U/UTP Solid Cat.6 4 Pair 24AWG Cable

VENDOR P/N : SB3AK004

REV. NO : 2011.02.15

DATE : 2011.02.15

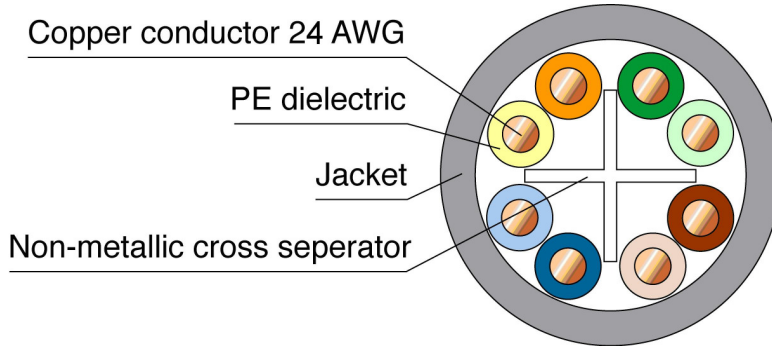
PART NO : GAR Series



審核 (Check) : 黃 啟 萬 工程 部 (Engineer) : 陳 秋 伶



GAR Series	U/UTP Solid Cat.6
Cable: 4 Pair 24AWG Solid	



Reference Standards	IEC 61156-5; EN50288-6-1 ; TIA/EIA -568C.2
Fire Rating	IEC 60332-1

Construction

Conductor	Bare copper wire nom. 1 x 0.51 mm (AWG24)
Insulation	Polyethylene, nom. 0.95 mm
Twisting	4 twisted pairs, 2 single conductors paired, Twisted pair color code: 1: white-blue/blue 2: white-orange/orange 3: white-green/green 4: white-brown/brown
Cable lay up	4 pairs with different pitches Non-metallic cross separator (spine)
Outer diameter	nom. 5.6 mm

Mechanical Properties

Bending radius	≧ 4xOD without load ≧ 8xOD with load
Temperature range,	
during operation	-20°C up to 60°C
during installation	0°C up to 50°C



Electrical Properties (at 20°C ± 5°C)

DC resistance	max. 9.38 Ω / 100m at 20°C
Resistance unbalance	max. 2 % at 20°C
Insulation resistance (500 V)	min. 5000 MΩ/Km at 20°C
Mutual capacitance	nom. 5.1 nf / 100 m at 1 kHz
Capacitance unbalance (pair to ground)	max. 160 pf / 100 m at 1 kHz
Nominal velocity of propagation	nom. 66 %
Test voltage (DC, 1 min)	1 kV / 1 min



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Transmission Performance acc. to IEC 61156-5 Cat.6 (at 20°C)

Frequency (MHz)	Impedance (Ω)	Attenuation (dB) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ELFEXT (dB) Min.	PSELFEXT (dB) Min.	
1	100 ± 15	*(2.0)	74.3	72.3	67.8	64.8	
4		3.8	65.3	63.3	55.8	52.8	
10		6.0	59.3	57.3	47.8	44.8	
16		7.6	56.3	54.3	43.7	40.7	
20		8.5	54.8	52.8	41.8	38.8	
31.25		10.7	51.9	49.9	37.9	34.9	
62.5		15.4	47.4	45.4	31.9	28.9	
100		19.8	44.3	42.3	27.8	24.8	
125		100 ±22	22.4	42.8	40.8	25.9	22.9
200			29.0	39.8	37.8	21.8	18.8
250	32.8		38.3	36.3	19.8	16.8	

Frequency (MHz)	Return Loss (dB) Min.	Propagation Delay (ns) Max.	Delay Skew (ns) Max.
1	20.0	570.0	45
4	23.0	552.0	
10	25.0	545.4	
16	25.0	543.0	
20	25.0	542.0	
31.25	23.6	540.4	
62.5	21.5	538.6	
100	20.1	537.6	
125	19.4	537.2	
200	18.0	536.6	
250	17.3	536.3	

*Values shown on tables above are for reference purpose only.

